

ZONG-LIANG YANG
EARTH SYSTEM SCIENCE

PROFESSIONAL PREPARATION

Nanjing Institute of Meteorology (China)	Meteorology	B.S. 1980 – 1984
Melbourne University (Australia)	Meteorology	M.S. 1986 – 1989
Macquarie University (Australia)	Atmospheric Sciences	Ph.D. 1989 – 1992

APPOINTMENTS

2011–	John A. and Katherine G. Jackson Chair in Earth System Science
2011–	Founding Director, Center for Integrated Earth System Science, UT-Austin
2008–	Professor (with tenure), University of Texas at Austin
2005–2008	Associate Professor (with tenure), University of Texas at Austin
2001–2005	Assistant Professor, University of Texas at Austin
1993–2001	Postdoc to Research Associate Professor, University of Arizona
1992–1993	Research Associate, Macquarie University, Sydney, Australia

PUBLICATIONS

Five Significant Publications Related to This Project (students underlined, * denotes postdocs)

(A full list of 110+ peer-reviewed papers: www.geo.utexas.edu/climate/Research/publications.htm)

- Yang, Z.-L., 2004: Modeling land surface processes in short-term weather and climate studies, in *Observations, Theory, and Modeling of Atmospheric Variability*, (ed. X. Zhu), World Scientific Series on Meteorology of East Asia, Vol. 3, World Scientific Publishing Corporation, Singapore, pp. 288–313.
- Yang, Z.-L., R.E. Dickinson, A. Robock and K.Y. Vinnikov, 1997: Validation of the snow sub-model of the Biosphere-Atmosphere Transfer Scheme with Russian snow cover and meteorological observational data, *Journal of Climate*, **10**, 353–373.
- Yang, Z.-L., D. Gochis and W.J. Shuttleworth, 2001: Evaluation of the simulations of the North American monsoon in the NCAR CCM3, *Geophysical Research Letters*, **28**(7), 1211–1214.
- Yang, Z.-L. and G.-Y. Niu*, 2003: The Versatile Integrator of Surface and Atmosphere Processes (VISA) Part 1: Model description, *Global and Planetary Change*, **38**, 175–189.
- Yang, Z.-L., G.-Y. Niu*, K. E. Mitchell, F. Chen, M. B. Ek, M. Barlage, L. Longuevergne, K. Manning, D. Niyogi, M. Tewari, and Y.-L. Xia, 2011: The community Noah land surface model with multiparameterization options (Noah-MP): 2. Evaluation over global river basins, *J. Geophys. Res.*, **116**, D12110, doi:10.1029/2010JD015140.

Five Other Related Publications

- David, C. H.*, **Z.-L. Yang**, and J. S. Famiglietti, 2013: Quantification of the upstream-to-downstream influence in the Muskingum method, and implications for speedup in parallel computations of river flow, *Water Resources Research*, **49**, 1–18, DOI: 10.1002/wrcr.20250.
- Jin, Q.-J., J.-F. Wei, and **Z.-L. Yang**, 2014: Positive response of Indian summer rainfall to Middle East dust, *Geophysical Research Letters*, **41**, 4068–4074.
- Niu, G.-Y.* and **Z.-L. Yang**, 2006: Effects of frozen soil on snowmelt runoff and soil water storage at a continental scale, *Journal of Hydrometeorology*, **7** (5), 937–952.
- Su, H., **Z.-L. Yang**, R. E. Dickinson, C. R. Wilson, and G.-Y. Niu*, 2010: Multisensor snow data assimilation at the continental scale: The value of Gravity Recovery and Climate Experiment terrestrial water storage information, *J. Geophys. Res.*, **115**, D10104, DOI: 10.1029/2009JD013035.
- Xu, Z.-F.* and **Z.-L. Yang**, 2012: An improved dynamical downscaling method with GCM bias corrections and its validation with 30 years of climate simulations, *J. Climate*, **25**, 6271–6286.

SYNERGISTIC ACTIVITIES

Guest Editor, *Climatic Change* Special Issue on Regional Earth System Modeling & Analysis, 2013–2014

Editorial Board, *Environmental Modeling and Software*, 2011–present

Co-Chair, NCAR CCSM Land Model Working Group, 2008–present

UT-Austin Member Representative, University Corporation for Atmospheric Research (UCAR), 2001, 2003, 2005, 2008–present

Organizer, NOAA/NCEP Land Surface Modeling Workshop, Austin, Texas, 19–22 April, 2010

COLLABORATORS AND OTHER AFFILIATIONS

Total # of Graduate Students Advised = 10

Total # of Post-docs Sponsored = 11

Graduate Students Advised and Post-docs/Research Associates Sponsored over Last 5 Years

Cedric David (Ph.D., 2007–2009), Lindsey E. Gulden (Ph.D., 2004–2009), Xiaoyan Jiang (Ph.D., 2006–2010), Enrique Rosero (Ph.D., 2007–2009), Bryan Hong (Postdoc, 2008–2011), Mingjie Shi (Ph.D., 2008–2013), Hua Su (Ph.D., 2005–2009; Research Associate 2012–present), Mingxing Li (Postdoc, 2012–2013), Guo-Yue Niu (Research Associate 1998–2009), Ahmad H. Tavakoly (Ph.D., 2010–2014), Zhongfeng Xu (Postdoc, 2010–2011), Jiangfeng Wei (Research Scientist, 2012–present)

Collaborators Last 5 Years

Jeff Anderson, NCAR;

Jay Banner, UT-Austin;

Michael Barlage, NCAR;

Gordon Bonan, NCAR;

Todd Caldwell, UT-Austin

Fei Chen, NCAR;

Robert E. Dickinson, UT-Austin;

Michael Ek, NCEP/EMC;

Jay Famiglietti, UCI/JPL;

Congbin Fu, Nanjing University, China;

Dave Gochis, NCAR;

Tim Hoar, NCAR;

Gary Kocurek, UT-Austin;

Dave Lawrence, NCAR;

Zhuguo Ma, Chinese Academy of Sciences, China;

David Maidment, UT-Austin

Keith Oleson, NCAR;

Roy Rasmussen, NCAR;

Matt Rodell, NASA;

Bridget Scanlon, UT-Austin;

Byron Tapley, UT-Austin;

Hanqin Tian, Auburn University;

Clark Wilson, UT-Austin

Graduate and Postdoctoral Advisors

Ian Simmonds, MS Advisor, Melbourne University, Australia

Ann Henderson-Sellers, Ph.D. Advisor, Macquarie University, Australia

Robert E. Dickinson, Postdoctoral Advisor, University of Texas at Austin

W. James Shuttleworth, Postdoctoral Advisor, University of Arizona